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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO.      |
|---|-------------|----------------------|---------------------|-----------------------|
| 10/583,220  | 06/16/2006  | Atsushi Miyazaki     | JFE-06-1129         | 7655                  |
| 35811   | 7590        | 12/23/2008           | EXAMINER            |                       |
| IP GROUP OF DLA PIPER US LLP<br>ONE LIBERTY PLACE<br>1650 MARKET ST, SUITE 4900<br>PHILADELPHIA, PA 19103 |             |                      |                     | FOGARTY, CAITLIN ANNE |
| 1793  |             | ART UNIT             |                     | PAPER NUMBER          |
| 12/23/2008  |             | MAIL DATE            |                     | DELIVERY MODE         |
|   |             |                      |                     | PAPER                 |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/583,220             | MIYAZAKI ET AL.     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | CAITLIN FOGARTY        | 1793                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 September 2008.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 13-33 is/are pending in the application.  
 4a) Of the above claim(s) 18,19 and 22-33 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 13-17,20 and 21 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 16 June 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____.   | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 13 – 33 are pending where claims 13 and 14 have been amended. Claims 1 – 12 have been cancelled and claims 18, 19, and 22-33 have been withdrawn from consideration.

### ***Status of Previous Objections and Rejections***

2. The objection of claim 14 due to informalities has been withdrawn in view of the amendment filed September 19, 2008.

The 35 U.S.C. 102(b) rejection of claims 13 and 15 as being anticipated by JP 2002-146484 has been withdrawn in view of the amendment filed September 19, 2008.

The 35 U.S.C. 102(b) rejection of claims 13 – 16, 20, and 21 as being anticipated by Miyazaki et al. (US 2002/0098107) has been withdrawn in view of the amendment filed September 19, 2008.

The 35 U.S.C. 103(a) rejection of claim 17 as being unpatentable over Miyazaki et al. (US 2002/0098107) has been withdrawn in view of the amendment filed September 19, 2008.

### ***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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5. Claims 13 – 17, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabata et al. (US 5,626,694).

With respect to instant claim 13, col. 3 lines 16-28 and lines 36-48, col. 6 line 63-col. 7 line 5, col. 8 lines 35-36, and col. 13 line 60-col. 14 line 67 of Kawabata teach a ferritic Cr-contained steel wherein a cold rolled annealed sheet is annealed, after cold rolling, at a final annealing temperature at 700°C-1300°C which overlaps with the temperature range recited in the instant claim. Kawabata also teaches a specific example of treating the ferritic Cr-contained steel where after cold rolling the sheet is subjected to annealing at 1150°C which is within the range recited in instant claim 13 (col. 13 line 60-col. 14 line 67). In addition, Kawabata teaches a ferritic Cr-contained steel with an overlapping composition with instant claim 13 as seen in the table below.

| Element         | Instant Claim 13<br>(mass %) | Kawabata et al.<br>(mass %) | Overlapping Range<br>(mass %) |
|-----------------|------------------------------|-----------------------------|-------------------------------|
| C               | ≤ 0.03                       | ≤ 0.01                      | ≤ 0.01                        |
| Mn              | ≤ 5.0                        | ≤ 5                         | ≤ 5                           |
| Cr              | 6 – 40                       | 9 – 50                      | 9 – 40                        |
| N               | ≤ 0.03                       | ≤ 0.02                      | ≤ 0.02                        |
| Si              | ≤ 5                          | ≤ 3                         | ≤ 3                           |
| W               | 2.05 – 6.0                   | 0.1 – 5                     | 2.05 – 5                      |
| Fe + Impurities | Balance                      | Balance                     | Balance                       |

Kawabata differs from instant claim 13 because it does not specifically teach that the precipitated W is about 0.1 mass% or less or that the average thermal expansion coefficient between 20°C and 800°C is less than about  $12.6 \times 10^{-6}/^{\circ}\text{C}$ . However, since the composition of the ferritic Cr-contained steel of Kawabata overlaps with the composition of the steel of the instant invention and since the steel of Kawabata is made using a method similar to the method of the instant invention, one of ordinary skill in the art would expect the steel of Kawabata to inherently have a similar amount of

precipitated W and a similar average thermal expansion coefficient between 20°C and 800°C. See MPEP 2112.

In regards to instant claim 14, col. 3 lines 36-48 of Kawabata disclose that the ferritic Cr-contained steel may further comprise 0.01-1.0 mass% Nb, 0.01-1.0 mass% Ti, 0.01-1.0 mass% Zr, 0.005-5.0 mass% Al, and 0.01-1.0 mass% V. The compositions of Nb, Ti, Zr, Al, and V in the steel of Kawabata overlap with the compositions of Nb, Ti, Zr, Al, and V recited in instant claim 14.

Regarding instant claim 15, col. 3 lines 36-48 of Kawabata teach that the ferritic steel may further comprise 0.1-5 mass% Mo which overlaps with the range recited in the instant claim.

With respect to instant claims 16, 20, and 21, col. 3 lines 36-48 of Kawabata disclose that the ferritic steel may further comprise less than 5 mass% Ni, 0.1-5 mass% Cu, and 0.1-5 mass % Co. The compositions of Ni, Cu, and Co in the steel of Kawabata overlap with the compositions of Ni, Cu, and Co recited in instant claims 16, 20, and 21.

In regards to instant claim 17, col. 3 lines 36-48 of Kawabata teach that the ferritic steel may further comprise 0.0003-0.01 mass% B which overlaps with the composition of B recited in the instant claim.

Since the claimed compositional ranges of claims 13 – 17, 20, and 21 either overlap or are within the ranges disclosed by Kawabata, a prima facie case of obviousness exists. See MPEP 2144.05. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed ferritic

Cr-contained steel composition from the ferritic Cr-contained steel composition disclosed by Kawabata because Kawabata teaches the same utility (i.e. materials for automobiles) in the whole disclosed range.

***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 13 – 17, 20, and 21 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 8, 10 – 14, and 16 of copending Application No. 10/512,782 in view of Kawabata et al. (US 5,626,694). The copending Application No. 10/512,782 recites a ferritic Cr-contained steel with a composition that overlaps with the steel of the instant claims. Since the claimed compositional ranges of claims 13-17, 20, and 21 either overlap or are within the ranges disclosed by 10/512,782, a prima facie case of obviousness exists. See MPEP 2144.05. It would have been obvious to one of ordinary skill in the

art at the time the invention was made to select the claimed ferritic steel composition from the ferritic steel composition disclosed by 10/512,782 because 10/512,782 teaches the same utility (i.e. exhaust pipes of automobiles) in the whole disclosed range.

Application No. 10/512,782 differs from the instant invention because it does not recite that the cold rolled sheet is annealed, after cold rolling, at a final annealing temperature of 1050 to 1200°C or that the steel has 0.1 mass% or less precipitated W and an average thermal expansion coefficient between 20°C and 800°C of less than about  $12 \times 10^{-6}/^{\circ}\text{C}$ . However, Kawabata teaches a method of treating a ferritic Cr-contained steel with a composition that overlaps with the steel composition recited in 10/512,782 that includes annealing the steel, after cold rolling, at a final annealing temperature at 700°C-1300°C which overlaps with the temperature range recited in the instant claim. Kawabata also teaches a specific example of treating the ferritic Cr-contained steel where after cold rolling the sheet is subjected to annealing at 1150°C which is within the range recited in the instant invention (see col. 3 lines 16-28 and lines 36-48, col. 6 line 63-col. 7 line 5, col. 8 lines 35-36, and col. 13 line 60-col. 14 line 67 of Kawabata). It would have been obvious to one of ordinary skill in the art to treat the ferritic steel of 10/512,782 using the method disclosed by Kawabata in order to improve the corrosion resistance of the steel and because the steels have the same utility of materials for automobiles. Therefore, since the composition of the ferritic Cr-contained steel of 10/512,782 in view of Kawabata overlaps with the composition of the steel of the instant invention and since the steel of 10/512,782 in view of Kawabata is made using a method similar to the method of the instant invention, one of ordinary skill in the

art would expect the steel of 10/512,782 in view of Kawabata to inherently have a similar amount of precipitated W and a similar average thermal expansion coefficient between 20°C and 800°C.

This is a provisional obviousness-type double patenting rejection.

***Response to Arguments***

8. Applicant's arguments with respect to claims 13 – 17, 20, and 21 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAITLIN FOGARTY whose telephone number is

(571)270-3589. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

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